CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/NE/W.No.08/WMM/Gradation/2016-17 30.03.2017

TEST REPORT ON GRADATION OF WET MIX MACADAM

* Customer	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
* Agency	:	**M/s. Nithin Enterprises,** Bangalore.
* Name of Work	:	Patching Pot holes in main and cross roads of Sahakaranagara B,C and D block Defence Colony CQAL Layout and surroundings areas in Ward No.08, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/238/2016-17 Dated: 17.03.2017
Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386 (part-1)1963 (RA-2011)
Date of Testing	:	30.03.2017

Oven Dry Wt (gm): **5000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits As per Morth Table 400-13
53	0	0	0	100	100
45	120	120	2.4	97.6	95-100
22.4	1585	1705	34.10	65.90	60-80
11.2	1040	2745	54.90	45.10	40-60
4.75	650	3395	67.90	32.10	25-40
2.36	415	3810	76.20	23.80	15-30
0.600	435	4245	84.90	15.10	8-22
0.075	455	4700	94.00	6.00	0-8

*Information is furnished by the Customer/Representative.

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Civil-Tech Consultants & Engineers Bangalore

Note:

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⇒The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒Any Query regarding the report must be reported within 30 days from the date of testing.

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Civil-tech Consultants & Engineers
#23/14, 7th Cross 3rd Stage 4th Block,
Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.

Tele Fax : 23223227, Website : www.civiltechconsultants.com

E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No.: CTCE/BBMP/NE/W.No.08/WMM/AIV/2016-17 30.03.2017

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
* Agency	:	**M/s. Nithin Enterprises,** Bangalore.
* Name of Work	:	Patching Pot holes in main and cross roads of Sahakaranagara B,C and D block Defence Colony CQAL Layout and surroundings areas in Ward No.08, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/238/2016-17 Dated: 17.03.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS : 2386(Part -4)-1963 (RA-2011)
Date of Testing	:	30.03.2017

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	390	387	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	85	88	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	305	299	
4	Aggregate Impact value = percent fines 100* (W2/W1)%	21.79	22.74	22.27

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Impact value for Wet Mix Macadam is 30%

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Yelahanka Zone, B.B.M.P.,
Bangalore.

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Shakth' Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

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Job No.: CTCE/BBMP/NE/W.No.08/WMM/Shape.T/2016-17 30.03.2017

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

* Customer	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
* Agency	:	**M/s. Nithin Enterprises,** Bangalore.
* Name of Work	:	Patching Pot holes in main and cross roads of Sahakaranagara B,C and D block Defence Colony CQAL Layout and surroundings areas in Ward No.08, BBMP, Bangalore.
* Reference	:	BBMP/EE/BTP/WO/238/2016-17 Dated: 17.03.2017
* Sample ID	:	Wet Mix Macadam
Technical Reference	:	IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	:	30.03.2017

Sl.No.	Description	Result
1	Flakiness Index	11.56%
2	Elongation Index	13.84%
3	Combined Flakiness & Elongation Index	25.40%

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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Yelahanka Zone, B.B.M.P.,
Bangalore.

Civil-tech Consultants & Engineers
#23/14, 7th Cross 3rd Stage 4th Block,
Shakthi Ganapathinagar,
Basaveshwaranagar, Bangalore-560 079.

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Job No: CTCE/BBMP/NE/W.No.08/BC/Bitumen/2017-18 04.04.2017

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE

As per IS2386 and IRC:SP:11-1984

* Customer	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
* Agency	**M/s. Nithin Enterprises,** Bangalore.
* Name of Work	Patching Pot holes in main and cross roads of Sahakaranagara B,C and D block Defence Colony CQAL Layout and surroundings areas in Ward No.08, BBMP, Bangalore.
* Reference	BBMP/EE/BTP/WO/238/2016-17 Dated: 17.03.2017
SAMPLE I/D	Roads in CQAL Layout and surroundings areas in Ward No.08
DATE OF TESTING	04.04.2017

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Sample 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	470	469
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g	-	-
6. Weight of Bitumen Extracted, g. (corrected)	30	31
7. Bitumen content in %	6.00	6.20
8. Average	**6.10**	

GRADATION AFTER EXTRACTION

TABLE - 1

SIEVE SIZE	Percent Passing, %		JOBMIX
mm	Sample 1	Sample 2	Gradation
19	100.00	100.00	100
13.2	88.63	85.45	79-100
9.5	81.42	78.23	70-88
4.75	63.58	66.58	53-71
2.36	47.12	47.42	42-58
1.18	43.53	65.85	34-48
0.6	32.15	31.45	26-38
0.3	26.58	22.36	18-28
0.15	13.25	14.25	12-20
0.075	6.85	6.54	4-10

*Information is furnished by the Customer/Representative.

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